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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/789,496

02/26/2004

David C. Nemir

70004-9601-CIP2

9093

5179 7590 01/09/2009

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EXAMINER

A, MINH D

ART UNIT

PAPER NUMBER

2821

MAIL DATE

DELIVERY MODE

01/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/789,496	Applicant(s) NEMIR ET AL.	
	Examiner MINH D. A	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,27-40,42-52,54 and 55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,27-40,42-52 and 54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The indicated allowability of claims 1, 27-40, 42-51, 56-57 is withdrawn in view of the newly discovered reference(s) to Chuen Chow (UK Patent Application GB 2159346A).

Specification

1. The disclosure is objected to under 37 CFR 1.71, as being so incomprehensible as to preclude a reasonable search of the prior art by the examiner. For example, the following items are not understood: in claim 30, wherein the programming signal comprises **a series of pulse**.

Applicant is required to submit an amendment which clarifies the disclosure so that the examiner may make a proper comparison of the invention with the prior art.

Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 52-55 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

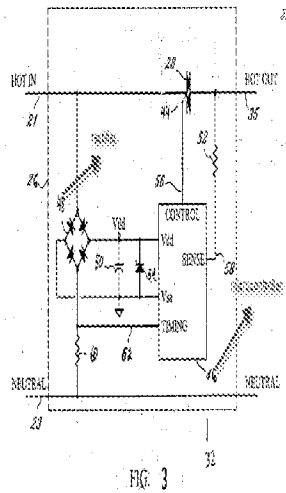


FIG. 3

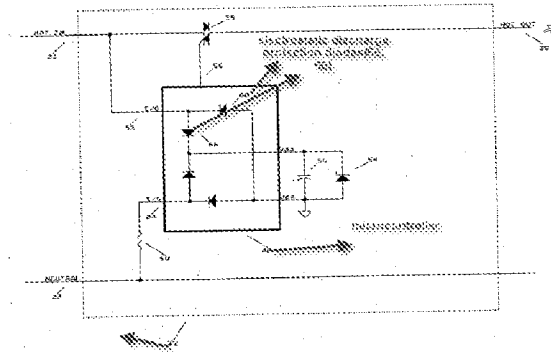


FIG. 5

Regarding claim 52, an apparatus for powering an electrical network comprising: a programmable controller comprising a microcontroller(46); and electrostatic discharge protection diodes(66 and 68) internal to said microcontroller(46) and excluding rectification elements(rectifier) of a DC power supply external to said microcontroller(46) as show in figures 3 and 5 above, now turn on the figure 4 and the limitation from the amendment that, **said diodes(66-68) paralleled by a MOSFET transistor(74 or 76) that forms an alternative conducting path around said internal electrostatic discharge protection diodes(66-68); (as show in figure 4).**

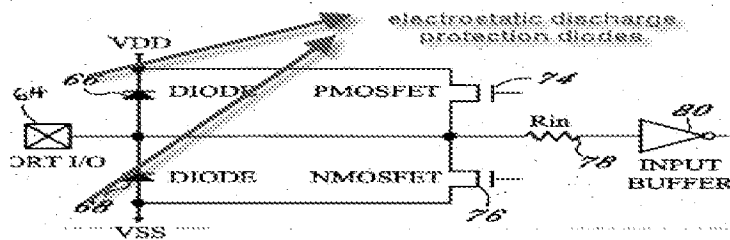


FIG. 4

wherein said internal electrostatic discharge protection diodes (66-68) provide a source of direct current for said microcontroller(46).

Claim 52 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "a microcontroller (46); and electrostatic discharge protection diodes(66 and 68) internal to said microcontroller(46) and excluding rectification elements(rectifier) of a DC power supply external to said microcontroller(46) as show in figures 3 and 5 above", does not reasonably provide enablement for **the diodes(66-68) paralleled by a MOSFET transistor(74 or 76) that forms an alternative conducting path around said internal electrostatic discharge protection diodes(66-68)**". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to the diodes (66 and 68) paralleled by the MOSFET transistors (74 or 76) into the microcontroller(46) the invention commensurate in scope with these claims. Further more, Figure 4, only disclose the MOSFETs and diodes (66-68) are connected to input buffer and do not how to connect or store into the microcontroller (46) or any device or component can be associated into the microcontroller (46) as show in figures 3 and 5 above.

Comment [D01]: You're saying one of ordinary skill would not be able to connect a MOSFET in parallel with the diodes? If that is correct, your rejection seems unreasonable.

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Claims 54-55 are rejected under 35 U.S.C. 112, first paragraph, since they are dependent on claim 52.

d).

Comment [D02]: This does not seem reasonable...the claims seem fine to me.

Claim Objections

4. Claims 32-33 are objected to because of the following informalities:

Regarding claims 32-33, line 1, "mixture of direct" should be inserted ---mixture of direct current---. See claim 47 for more detail. Appropriate correction is required.

Comment [D03]: I'm not certain what you're saying here.

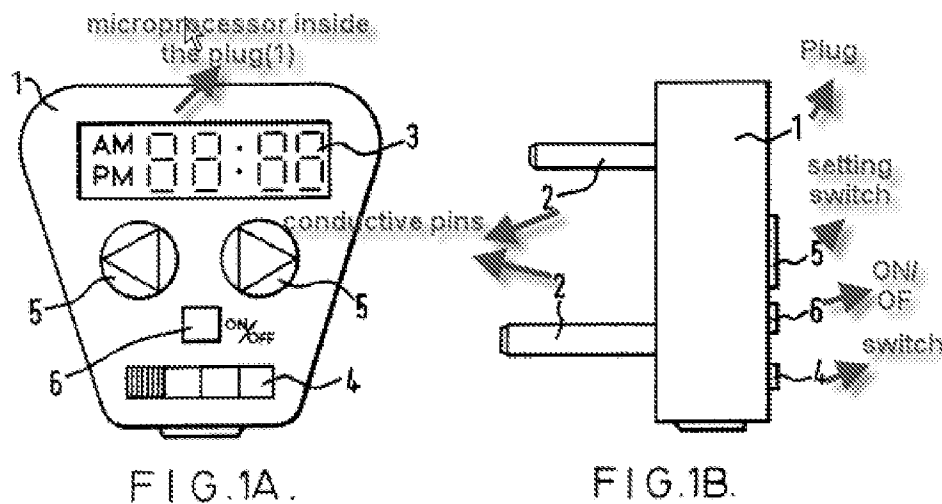
Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 27-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Chi Chuen Chow (UK Patent Application GB 2159346A).



Regarding claim 1, Chi Chuen Chow disclose in figure 1A-1B above that, an apparatus for control of an alternating current appliance, said apparatus being entirely resident within an appliance plug(1), said plug(1) comprising power delivery conductors(conductive pins), and said apparatus comprising a programmable controller (microprocessor inside the plug, see figures 1A-1B above, page 1, lines 53-59) which is programmable exclusively through a plurality of the power delivery conductors (conductive pins).

Regarding claim 27, Chi Chuen Chow disclose in figure 1B above that, wherein said plurality numbers (conductive pins) no more than four.

Regarding claim 28, Chi Chuen Chow disclose in figure 1B above that, wherein two of said no more than four are electrically shorted together such that said plurality of power delivery conductors consists of not more than three electrically unique power delivery conductors(two conductive pins).

Regarding claim 29, Chi Chuen Chow disclose in figure 1B above that, wherein a programming signal is applied to two of said not more than three electrically unique power delivery conductors (two conductive pins).

Regarding claim 30, Chi Chuen Chow disclose in figure 1B above that, wherein said programming signal comprises a series of pulses.

Regarding claim 31, Chi Chuen Chow disclose in figure 1B above that, wherein a data line (data, 1-4 and clock as shown in figure 2A) a clock line of controller (microprocessor) are controlled by application of a programming signal applied to two of said not more than three electrically unique power delivery conductors (conductive pins).

Regarding claim 36, Chi Chuen Chow disclose in figure 1B above that, wherein said programmable controller comprises a microcontroller (microprocessor inside the plug, see figures 1A-1B above, page 1, lines 53-59).

Regarding claim 38, Chi Chuen Chow disclose in figures 1A-1B above wherein said programmable controller is programmed via electronic signals from a programmer.

Regarding claim 39, Chi Chuen Chow disclose in figures 1A-1B above that wherein the controller is programmable after said apparatus is assembled and the controller of the apparatus is entirely resident within said appliance plug(1).

Regarding claim 40, Chi Chuen Chow disclose in figure 1A above that, wherein said apparatus enables an appliance electrically connected thereto to operate in a

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manner different from that originally intended(figure 1B above can be used clock, ON/OFF switch.

Regarding claim 56, Chi Chuen Chow disclose in figures 1A-1B above that wherein said plug is a plug portion of a plug-in module.

Regarding claim 42, Chi Chuen Chow disclose in figures 1A-1B above that ,a method for control of an alternating current appliance, the method comprising the steps of: providing a programmable controller(microprocessor inside the plug(1) as show in figures 1A and 1B); providing an appliance plug; disposing the programmable controller within the appliance plug; providing a plurality of electrical power delivery conductors(2); programming the controller exclusively by applying one or more signals to two or more of the power delivery conductors(2).

Regarding claim 43, Chi Chuen Chow disclose in figure 1B above that wherein the programming step comprises applying one or more signals to no more than three of the power delivery conductors(2).

Regarding claim 44, Chi Chuen Chow disclose in figure 1B above that a programming the programmable controller (microprocessor in side the pug(10)) with electronic signals communicated from a programmer to the controller through one or more of the power delivery conductors(pins conducotrs(2)) after the controller has been disposed in the appliance plug(1).

Regarding claim 45, Chi Chuen Chow disclose in figure 1B above the step of applying a high frequency signal to two of the power delivery conductors to place the programmable controller into a programming mode.

Regarding claim 46, Chi Chuen Chow disclose in figure 1B above that the step of applying a series of pulses applied to two of the power delivery conductors to control both data and clock lines during programming.

Regarding claim 47, Chi Chuen Chow disclose in figure 1B above that Claim 47. (original): The method of claim 44 additionally comprising applying a mixture of direct current and alternating current signals to two of the power delivery conductors to place the programmable controller into a programming mode.

Regarding claim 48, Chi Chuen Chow disclose in figure 1B above that the step of electronically configuring the programmable controller to implement a set of control actions (ON/OFF switch, clock and adjustment button as shown in figure 2A).

Regarding claim 49, Chi Chuen Chow disclose in figure 1B above wherein the step of providing a programmable controller comprises providing a microcontroller (microprocessor inside the plug (1)).

Regarding claim 51, Chi Chuen Chow disclose in figure 1B above that the step of controlling an appliance by programming the programmable controller so as to enable the appliance to perform in a manner different from its original design.(see figure 2A, adjustment, clock, switch. etc).

Regarding claim 57, Chi Chuen Chow disclose in figure 1B, wherein said plug is a plug portion of a plug-in module.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 37 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Chuen Chow (UK Patent Application GB 2159346A) in view of Chang (US 5,477,279).

Regarding claims 37 and 50, Chuen Chow disclose discloses the controller controls for protecting an appliance connected to a household. Show in figures 1A and 1B.

Chuen Chow does not disclose the controller control selected from the group consisting of thyristors transistor, triac and combination.

Chang discloses the microprocessor having transistors (106-108). See figure 3.

It would have been an obvious to one of ordinary skill in the art at the time the invention was made to employ the transistors such as that suggested by Chang in the microcontroller of Chuen Chou to turn on or off DC voltage from rectifying circuit and consume little static power for voltage and current.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu A whose telephone number is (571) 272-1817. The examiner can normally be reached on M-F (5:30 AM-2: 45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Owens Douglas W can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is

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assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Minh A

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/Douglas W Owens/
Supervisory Patent Examiner, Art Unit 2821
December 22, 2008